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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,180	03/30/2001	Jari Hartikainen	297-010084-U	3005

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FAIRFIELD, CT 06824

EXAMINER
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LE, DUY K

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/744,180

Applicant(s)

HARTIKAINEN ET AL.

Examiner

Duy K Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 4 is objected to because of the following informalities: claim 4 is a method according to claim 1, "characterized in that one of the hierarchical levels ...". However, the hierarchical levels are first mentioned in claim 2. Thus, the dependency of claim 4 with respect to claim 1 is not clear. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, 9-15, 17-18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Iera et al. ("“Call-Level” and “Burst-Level” Priorities for an Effective Management of Multimedia Services in UMTS”, Proceedings IEEE INFOCOM 1996).

As to claim 1, the Iera reference discloses a method for management of bearers in a cellular telecommunications system (see Abstract), characterized in that

at least two priority data items are associated with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity (“two-level priority mechanism”, page 1365, section 3, second and third paragraphs), and

decisions whether or not to provide services for a bearer are based at least in part on the value of at least one of said at least two priority data items (“use of the priorities”, page 1366, section 4, third paragraph).

As to claims 5, 17, and 20, the Iera reference discloses that at least two sets of decisions on providing service are defined (“a two-level (static and dynamic) priority mechanism is proposed to be adopted by the higher protocol levels of UMTS for the adaptation of call set-up, channel access, and admission control procedures” (Abstract, lines 8-11)),

a first combination of the priority data items is used in a first set (“Static Priority is given by the Mobile Station on a “call-basis” to each component of the multimedia traffic” (page 1365, section 3, second paragraph)) and

a second combination of the priority data items is used in a second set (“Dynamic Priority is assigned by the Base Station on a “spurt-basis” according to the traffic activity of all the components of the multimedia service” (page 1365, section 3, third paragraph)).

As to claim 9, the Iera reference discloses a method according to Claim 1, characterized in that at least one of the priority data items is allocated during the bearer setup procedure (“during call set-up, it could happen that enough resources are not available for accepting the call in its nominal configuration. In this case the IA packet can be temporarily queued in the reservation buffer of the BS and Static Priority is exploited as a metric to decide which of the components shall be dropped” (page 1366, section 4, third paragraph)).

As to claim 10, the Iera reference discloses a method according to Claim 1, characterized in that at least one priority data item is changed during the connection (“after a component of

traffic coming from a multimedia terminal wins the contention for the access to the channel, it can happen that there is a temporary lack of available resources and it needs to be queued. In this case, the BS controls if another traffic component of the same service but with a lower Order\_Number (i.e., lower Static Priority) is already activated. If such is the case, the BS, while queuing the component, assigns to it a higher Dynamic Priority in respect to the other reservation requests” (page 1366, section 4, seventh paragraph)).

As to claim 11, the Iera reference discloses a method according to Claim 9 characterized in that the priority data item is determined by the mobile station (“Static Priority is given by the Mobile Station on a “call-basis” to each component of the multimedia traffic” (page 1365, section 3, second paragraph)).

As to claim 12, the Iera reference discloses a method according to Claim 9 characterized in that the priority data item is determined by the network (“Dynamic Priority is assigned by the Base Station on a “spurt-basis” according to the traffic activity of all the components of the multimedia service” (page 1365, section 3, third paragraph)).

As to claim 13, the Iera reference discloses a method according to Claim 1 in a telecommunications system comprising a radio access network, a core network and a mobile equipment wherein

the decisions on whether or not to provide the radio service for the connection are made in the radio access network (“during call set-up, it could happen that enough resources are not available for accepting the call in its nominal configuration. In this case the IA packet can be temporarily queued in the reservation buffer of the BS and Static Priority is exploited as a metric

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to decide which of the components shall be dropped” (page 1366, section 4, third paragraph))  
and

the priority items are stored in the radio access network (“after a component of traffic coming from a multimedia terminal wins the contention for the access to the channel, it can happen that there is a temporary lack of available resources and it needs to be queued. In this case, the BS controls if another traffic component of the same service but with a lower Order\_Number (i.e., lower Static Priority) is already activated. If such is the case, the BS, while queuing the component, assigns to it a higher Dynamic Priority in respect to the other reservation requests” (page 1366, section 4, seventh paragraph)),

characterized in that the mobile equipment sends the core network entity controlling the bearer a request to change the value of a priority data item and the core network requests the radio access network to change the value of the priority data item (“The Static Priority given by the user to the components of the multimedia service is notified to the system by putting some information in the fields of the so called Initialization Access packet (IA). The IA packet contains information about the identification of the mobile, the required capacity and the nature of traffic to be transmitted” (page 1365, section 3, fifth paragraph). “The improvement on the overall quality can be easily understood by focusing on the example of a mobile videophone communication. It seems logic to assign at the call set-up to the voice component a higher Static Priority compared to the video” (page 1366, section 4, ninth paragraph)).

As to claim 14, the Iera reference discloses a method according to Claim 1, characterized in that at least a required minimum value for a priority data item is defined and the bearers

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having a priority data item value smaller than the required minimum priority value are not given resources ("Minimum Set", page 1366, section 4, fourth paragraph).

As to claim 15, it is the system counterpart of claim 1 (method). As cited in claim 1, the Iera reference discloses a cellular telecommunications system, characterized in that for management of bearers

at least two priority data items are arranged to be associated with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity ("two-level priority mechanism", page 1365, section 3, second and third paragraphs), and

decisions whether or not to provide services for a bearer are arranged to be based at least in part on the value of at least one of said at least two priority data items ("use of the priorities", page 1366, section 4, third paragraph).

As to claim 18, as cited in claim 1, the Iera reference discloses a radio network controller for a cellular telecommunications system ("the Static Priority given by the user to the components of the multimedia service is notified to the system by putting some information in the fields of the so called Initialization Access packet (IA). It is normally used by the MS to send a set-up request to the BS" (page 1365, section 3, sixth paragraph), characterized in that for management of bearers it comprises

means for associating at least two priority data items with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity ("two-level priority mechanism", page 1365, section 3, second and third paragraphs), and

means for making decisions whether or not to provide services for a bearer based at least in part on the value of at least one of said at least two priority data items ("use of the priorities", page 1366, section 4, third paragraph).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4, 6, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iera et al. in view of Reardon et al. (U.S. Patent 5,636,223).

As to claims 2, 16, and 19, the Iera reference discloses a method according to Claim 1, a system according to Claim 15, and a radio network controller according to Claim 18. However, it does not disclose that the bearers are organized into sets on at least two hierarchical levels and a priority data item is given for each set. The Reardon reference teaches organizing into sets on at least two hierarchical levels and a priority data item is given for each set (Figure 4: the row corresponds to terminal priority and the column corresponds to channel priority level. See Col. 7, lines 5-12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and system of Iera to have the bearers organized into sets on at least two hierarchical levels and a priority data item is given for each set, as taught by Reardon, in order to determine priority access level.



As to claim 3, Iera-Reardon discloses a method according to Claim 2, characterized in that one of the hierarchical levels is the level of one bearer, and the sets on that level comprise one bearer (Figure 4; “row (403) with priority 2 again ranging from a low priority of “0” to a high of “3”, that corresponds to the channel priority level” (Reardon, Col. 7, lines 9-12)).

As to claim 4, the Iera reference discloses a method according to Claim 1. However, it does not disclose that one of the hierarchical levels is the level of client identity, and the sets on that level comprise the bearers of that client identity. The Reardon reference teaches one of the hierarchical levels is the level of client identity, and the sets on that level comprise the bearers of that client identity (Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the priority, here priority 1 with “0” being the lowest and “3) being the highest as depicted, of the terminal practicing the method” (Reardon, Col. 7, lines 4-8)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera such that one of the hierarchical levels is the level of client identity, and the sets on that level comprise the bearers of that client identity, as taught by Reardon, in order to determine priority access level.

As to claim 6, the Iera reference discloses a method according to Claim 1. However, it does not disclose that all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items. The Reardon reference teaches all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items (Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the

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priority, here priority 1 with "0" being the lowest and "3) being the highest as depicted, of the terminal practicing the method" (Reardon, Col. 7, lines 4-8)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera such that all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items, as taught by Reardon, in order to determine priority access level.

5. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iera et al. in view of Reardon et al. (U.S. Patent 5,636,223) and further in view of Chambers (U.S. Patent 6,256,497).

As to claim 7, Iera-Reardon discloses a method according to Claim 6. The Iera reference discloses the value of the first priority data item is stored in the mobile station ("Static Priority is given by the Mobile Station on a "call-basis" to each component of the multimedia traffic" (page 1365, section 3, second paragraph)). However, it does not expressly disclose that the value of the first priority data item is stored in the USIM. The Chambers reference discloses "the handheld unit UT 1 also includes a subscriber identification module (SIM) smartcard 26" (Col. 7, lines 13-15). "The SIM card 26 includes a memory M1 which stores an IMSI, which is used both for the GSM network 9 and the satellite network. The memory also stores an encryption algorithm and an authentication algorithm, and a function Ki, for terminal identification and data encryption according to the GSM Recommendation supra" (Col. 7, lines 25-30)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera-Reardon such that the value of the first

priority data item is stored in the USIM, as taught by Chambers, in order to provide the static priority associated with a mobile station.

As to claim 8, Iera-Reardon discloses a method according to Claim 6. However, it does not expressly disclose that the client identity is the identity of a USIM. The Chambers reference discloses “the handheld unit UT 1 also includes a subscriber identification module (SIM) smartcard 26” (Col. 7, lines 13-15). “The SIM card 26 includes a memory M1 which stores an IMSI, which is used both for the GSM network 9 and the satellite network. The memory also stores an encryption algorithm and an authentication algorithm, and a function Ki, for terminal identification and data encryption according to the GSM Recommendation supra” (Col. 7, lines 25-30)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera-Reardon such that the client identity is the identity of a USIM, as taught by Chambers, in order to provide the static priority associated with a mobile station.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

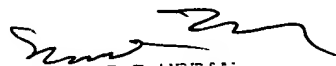
- a. Solondz (U.S. Patent 6,192,248) discloses service customization in a wireless communication system.
- b. Dupont (U.S. Patent 5,729,542) discloses method and apparatus for communication system access.

- c. Rinne et al. (U.S. Patent Application Publication 2001/0046863 A1) discloses method and system for controlling radio communications network and radio network controller.
  - d. Scholefield et al. (U.S. Patent 5,742,592) discloses method for communicating data in a wireless communication system.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy K Le whose telephone number is 703-305-5660. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Duy Le  
November 24, 2003

  
EDWARD F. URBAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600